

Hawaii Agricultural Research Center (HARC)

Pilot Training Manual for Drone Pesticide Applications

Updated June 2022

SCOPE OF TRAINING MANUAL

This manual is intended for use by persons conducting or involved in drone pesticide applications for the Hawaii Agricultural Research Center (HARC). All information needed is not contained within this manual. Several additional required documents are referenced and available through HARC.

This manual, along with all additional documents and a Part 107 remote license, provide all information needed to pass the pilot knowledge test and flight operations test for completion of HARC pilot training.

TRAINING COMPLETION REQUIREMENTS

There are four requirements for completing HARC pilot training for drone pesticide applications. These requirements are:

1. Part 107 certification - Acquire and maintain Part 107 remote pilot certification.
2. Pilot knowledge test - Pass an oral/written knowledge demonstration on topics of pesticide handling and use, symptoms of poisoning, flight procedures, and operating limitations.
3. Skill Demonstration - Satisfactory in-field demonstration of drone pesticide operation, including pre-flight, spray application, and post-flight procedures.
4. Recurrent testing - All pilots are required to take the pilot knowledge test and skill demonstration every 24 months, or after any period of 12 months without active participation in HARC drone pesticide operations.

I. LAWS AND REGULATIONS

For information on laws and regulation regarding drone pesticide operations, refer to the following document. This is available through HARC, or the most up-to-date versions can be accessed online using the links provided.

- A. 14 CFR Part 137

<https://www.ecfr.gov/current/title-14/chapter-I/subchapter-G/part-137>

II. DRONE SYSTEM COMPONENTS

For information on drone system components, refer to the following documents.

- A. E616S Agriculture Drone Frame User Manual
- B. Jiyi K++ V2 Flight Control Manual
- C. SIYI AK28 Android Smart Controller User Manual
- D. Agri Assistant App Manual

III. DRONE PESTICIDE OPERATIONS

For information on drone pesticide operations, refer to the following documents.

- A. CTAHR Aerial Pesticide Application Booklet
- B. Supplement to CTAHR Aerial Pesticide Application for Unmanned Aerial System
Multirotor
- C. HARC sUAS Flight Operations Manual